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BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N
                                      PROGRAM ELEMENT TITLE: Integrated Surveillance System   IUSS

(U) COST: (Dollars in Thousands)
PROJECT

NUMBER & TITLE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0766 IUSS Detect/ Classif	14,815	11,930	10,603	22,863	22,185	19,804	14,849	CONT.	CONT.
X0758 SURTASS	3,692	5,995	6,325	5,719	6,798	7,679	7,839	CONT.	CONT.
TOTAL	18,507	17,925	16,928	28,582	28,983	27,483	22,688	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This Program Element (P.E.) comprises two projects - X0766 and X0758. Project X0766 provides for Integrated Undersea Surveillance Systems (IUSS) Research and Development Projects. Project X0758 is for the Surveillance Towed Array Sensor (SURTASS) development efforts. IUSS provides the Navy with its primary means of submarine detection both nuclear and diesel. The program has undergone a major transition from emphasis on maintaining a large dispersed surveillance force keyed to detection and tracking of soviet submarines to a much smaller force that is effective against modern diesel and nuclear submarines in regional/littoral or broad ocean areas of interest. This transition preserves the ability to continue open ocean surveillance.

(U) The IUSS Research and Development project (X0766) funds Fixed Surveillance Systems (FSS) which encompasses the Sound Surveillance System (SOSUS), the Surveillance Direction System (SDS), the Fixed Distributed System (FDS) and SURTASS Low Frequency Active (LFA) developments. The number of SOSUS processing sites has been reduced and the display equipment used at the remaining sites will be converted to SDS/SSIPS (Shore Signal and Information Processing Segment) to significantly lower life cycle costs and enable system-wide consolidation. SURTASS LFA will provide an active adjunct capability for IUSS passive and tactical sensors to assist in countering the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow quiet threats in harsh littoral waters.

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Exhibit R-2, RDT&E Budget Item Justification

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N
                                      PROGRAM ELEMENT TITLE: Integrated Surveillance System   IUSS

(U) In order to continue with reductions in life cycle costs and continue with system-wide consolidation, a long-term goal is to develop a single IUSS processor. The IUSS processor will have the capability to process and display data from future underwater systems (such as the Advanced Deployable System (ADS) and FDS-C). The IUSS processor will also have the capability to replace the legacy systems (SSIPS, SDS, and SURTASS) as they reach end of life and require upgrading.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: Budget Activity 7: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrade of existing operational systems.

B. (U) PROGRAM CHANGE SUMMARY:

   FY99 Reflects Congressional reductions associated with Revised Economic Assumptions (-90), SBIR (-454), LOCO GPSI (-121) and Miscellaneous Departmental Adjustments (-200). FY00 Reflects Congressional reduction (-100). Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638 (419). FY01 reflects Miscellaneous Departmental adjustments (-160).

C. (U) OTHER PROGRAM FUNDING SUMMARY:

X0766:	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
OPN# 2225	0	0	0	0	0	0	27,033	CONT.	CONT.
OMN 1C3C	25,155	28,040	30,098	29,781	31,106	33,019	39,875	CONT.	CONT.
OPN# 2237	12,452	7,227	5,516	17,229	9,311	19,392	24,229	CONT.	CONT.

X0766 RELATED RDT&E:

                                              Exhibit R-2, RDT&E Budget Item Justification

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N
                                      PROGRAM ELEMENT TITLE: Integrated Surveillance System   IUSS

        (U) PE   0204311N(Integrated Surveillance System)
        (U) PE   0603785N(Combat Systems Oceanographic Performance Assessment)
        (U) PE   0603747N(Undersea Warfare Advanced Technology)

X0758:	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
OPN #2237	12,452	7,227	5,516	17,229	9,311	19,392	24,229	CONT.	CONT.

X0758 RELATED RDT&E:

    (U) PE   0204311N(Integrated Surveillance System)
    (U) PE   0603785N(Combat Systems Oceanographic Performance Assessment)
    (U) PE   0603747N(Undersea Warfare Advanced Technology)

D. (U) ACQUISITION STRATEGY: See individual projects for acquisition strategy.

E. (U) SCHEDULE PROFILE: See individual projects for schedule profiles.

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766
                                  PROGRAM ELEMENT TITLE: Integrated Surveillance System   PROJECT TITLE: IUSS

(U)   COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0766 IUSS Detect/Classif System									
TOTAL	14,815	11,930	10,603	22,863	22,185	19,804	14,849	CONT.	CONT.

A.   (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: LFA will provide an active adjunct capability for IUSS passive and tactical sensors to counter the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow quiet threats in harsh littoral waters. Functional improvements are delivered to the Fleet in software "Builds". SURTASS/LFA Build #1 (FY 97) included waveform-processing improvements, tactical processing interfaces, and signal processing enhancements. Build #2 (FY 98) included Twin-Line/LFA integration; advanced waveforms for littoral/shallow water operations including doppler sensitive waveforms; and processing algorithms to reduce clutter and reverberation false alarms in shallow water. Also includes Adaptive Beamforming; Integration of tactical decision aids for LFA monostatic and bistatic operation; integration of SURTASS active and passive information processing systems to provide contact association and geographic tracking; and common antisubmarine warfare (ASW) OMI and environmental processing. The LFA task includes development and test of a compact LFA transmit source array for SWATH-P ships.

B.   (U) PD18 is involved with the development and maintenance of various IUSS systems. These systems include FDS, FDS-C, SDS, SURTASS, and ADS. The near term objective is to obtain a common Operator Machine Interface (OMI) among currently fielded systems. The long-term goal is to develop a single IUSS processor baseline, with minor maintenance efforts continuing on fielded systems. The existing system architecture, signal processing, contact management, and reporting requirements will be evaluated as well as the requirements for future systems. The development of the IUSS processor will take advantage of automation advancement, array technology improvements, and submarine and surface system commonality.

Exhibit R-2a, RDT&E Project Justification x0766

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766
                            PROGRAM ELEMENT TITLE: Integrated Surveillance System   PROJECT TITLE: IUSS

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1.   (U) FY 1999 Plans:

* (U) ($ 4,856) Initiate development of a common IUSS processing architecture; to include signal, data,   and
  display processing requirements generation, analysis, and contractual planning. Initiate incorporation of ARCI Advanced
  Processing Builds (APB)-1 architecture to support IUSS processing requirements.

* (U) ($ 2,500) Continue investigations and analysis to support preparation of Environmental Impact Statement
  (EIS) for SURTASS.

* (U) ($ 3,500) Continue LFA development and integration of signal/data processing software for
  littoral/shallow water operations and T-AGOS 23 initial at-sea testing and preparation for Pre-DT testing.

* (U) ($ 1,029) Upgrade SURTASS communications capabilities to comply with Naval Command, Control,
  Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) guidance. Develop
  capability for increased data transmissions to shore.

* (U) ($ 2,500) Prototype, define, and incorporate a common Operator Machine Interface (OMI) for SURTASS and
  SSIPS/SDS legacy systems.

* (U) ($ 430) Conduct Sea Test Planning for T-AGOS 23 DT/OT testing.

2.   (U) FY 2000 Plans:

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Exhibit R-2a, RDT&E Project Justification x0766

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EXHIBIT R-2a, FY2001 RDT&E PROJECT JUSTIFICATION   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766
                            PROGRAM ELEMENT TITLE: Integrated Surveillance System   PROJECT TITLE: IUSS

- (U) ($ 4,088) Continue design and development of software to transition IUSS to a common processing architecture.
- (U) ($ 1,500) Continue scientific research program to support operational deployment of LFA.

- (U) ($ 1,600) Conduct DT/OT testing of T-AGOS 23 SURTASS/LFA system.

- (U) ($ 2,600) Continue LFA development and integration in support of DT/OT testing of T-AGOS 23 SURTASS/LFA system. Correct software issues identified during conduct of DT/OT testing.

- (U) ($ 1,716) Complete transition of SURTASS and SSIPS/SDS to a common OMI. Complete Factory Acceptance Testing (FAT) at each developer facility and install into fielded legacy systems. Prototype requested fleet enhancements to common OMI baseline.

- (U) ($ 426) Continue integration of IUSS into the Fleet C4ISR architecture.

3. (U) FY 2001 PLANS

- (U) ($ 3,240) Continue design and development of software to transition IUSS to a common processing architecture. Verify design and functionality via in lab demonstration testing.

- (U) ($ 3,129) Continue sea testing and LFA development to improve performance in shallow water/littoral regions to support ARG operations and to correct LFA OPEVAL deficiencies as required.

- (U) ($ 1,500) Continue scientific research program to support operational deployment of LFA.

- (U) ($ 950) Continue integration of IUSS into the Fleet C4ISR architecture.

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Exhibit R-2a, RDT&E Project Justification x0766

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766
                                 PROGRAM ELEMENT TITLE: Integrated Surveillance System   PROJECT TITLE: IUSS

- (U) ($ 1,084) Conduct trade-off analysis for LLFA array, processing, array handling and ship modification.

- (U) ($ 700) Conduct trade-off and mission studies to explore networked ASW system concepts, investment alternatives and development of a community wide strategy for common performance models.

B.   (U) PROGRAM CHANGE EXPLANATION:

(U) Project X0766 Funding: FY99 Reflects reductions associated with Revised Economic Assumptions (-72), SBIR (-345), LOCO GPSI (-90) and Miscellaneous Departmental Adjustments (-161). FY00 Reflects Congressional reduction (-67). FY01 reflects Miscellaneous Departmental adjustments (-91).

(U) Schedule/Technical: FY99, delay start of CLFA development.

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
OPN# 2225	0	0	0	0	0	0	27,033	CONT.	CONT.
OMN 1C3C	25,155	28,040	30,098	29,781	31,106	33,019	39,875	CONT.	CONT.
OPN# 2237	12,452	7,227	5,516	17,229	9,311	19,392	24,229	CONT.	CONT.

(U) RELATED RDT&E:
   (U) PE   0204311N(Integrated Surveillance System)
   (U) PE   0603785N(Combat Systems Oceanographic Performance Assessment)
   (U) PE   0603747N(Undersea Warfare Advanced Technology)

Exhibit R-2a, RDT&E Project Justification x0766

EXHIBIT R-2a, FY2001 RDT&E PROJECT JUSTIFICATION   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766
                           PROGRAM ELEMENT TITLE: Integrated Surveillance System   PROJECT TITLE: IUSS

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Exhibit R-2a, RDT&E Project Justification x0766

EXHIBIT R-2a, FY2001 RDT&E PROJECT JUSTIFICATION   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766
                           PROGRAM ELEMENT TITLE: Integrated Surveillance System   PROJECT TITLE: IUSS

D.   (U) ACQUISITION STRATEGY:

	FY 1999	FY 2000	FY2001
Program Milestones			LFA MS III 01/01
Engineering Milestones	*Build #2 LITTORAL* IMPROV 9/98		NCAP A-180R VARIANT 2/01
T&E Milestones	SDS OPEVAL 1Q/99	T-AGOS 23 DLVRY 7/00	SEA TEST NCAP A-180R VARIANT
Contract Milestones			SEA TESTS DT-7/01,OT-9/01

Exhibit R-2a, RDT&E Project Justification x0766

| Exhibit R-3 Cost Analysis (page 1) | | | | | | | | | | | | Date: Feb 2000 | |
| RDT&E/Budget Activity 7 | | | PROGRAM ELEMENT: 0204311N | | | | | | | | | SURTASS x0766 | |
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
IUSS Common Architecture	CPFF	RSC/LM/DSR	14,948	3,842	12/98	3,928	11/99	2,825	10/00	Cont.		10,595
Environmental Research	WR	ONR	2,000	2,000	10/98	1,500	11/99	1,500	12/00	Cont.		5,000
LFA Improvements	CPFF	RSC/LS	73,238	5,000	10/98	3,155	11/99	1,972	12/00	Cont.		10,127
C4I Integration	CPFF	Various	29,395	1,801	1/99	258	11/99	789	11/00	Cont.		2,848
Various	WX	Various	27,395	1,062	10/98	1,716	11/99	1,796	10/00	Cont.		4,574
Subtotal Product Development			146,976	13,705		10,557		8,882				33,144
Remarks: RSC= Raytheon Systems Co. Portsmouth, RI LM= Lockheed Martin, Manassas, VA TRW=TRW Systems Div., San Diego, CA L/S= Lockheed Sanders, Nashua, NH DSR = Digital System Resources, Fairfax, VA												
IUSS Common Arch.	WX	Various	840	150	11/98	160	11/99	170	11/00	Cont.		480
LFA Improvements	CPFF	TRW/Various	2,099	325	12/98	395	12/99	395	12/00	Cont.		1115
C4ISR Integration	CPFF	TRW/Various	1,259	100	12/98	168	12/99	161	11/00	Cont.		429

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`Exhibit R-3, RDT&E PROJECT COST ANALYSIS`

EXHIBIT R-3, FY2001 RDT&E PROJECT COST ANALYSIS   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0766

Subtotal Support			4,198	575		723		726				2,024
Remarks												

(Exhibit R-3, page 1 of 2)

Exhibit R-3 Cost Analysis (page 2)											Date: Feb 2000	
RDT&E/Budget Activity 7			PROGRAM ELEMENT: 0204311N								SURTASS x0766	
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
IUSS Common Architecture	Var/WX	Various	651	0	Var.	0	Var.	245		Cont.		245
LFA Improvement	Var/WX	Various	1,520	435	Var.	550	Var.	650		Cont.		1,635
Subtotal T&E			2,171	435		550		895		Cont.		1,880
Remarks												
LFA Improvements/C4ISR	Var/WX	Various	1,050	100	Var.	100	Var.	100		Cont.		300
Subtotal Management			1,050	100		100		100		Cont.		300

Exhibit R-3, RDT&E PROJECT COST ANALYSIS

Remarks										
Total Cost			154,395	14,815		11,930		10,603			37,348
Remarks										

(Exhibit R-3, page 2 of 2)

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0758
                            PROGRAM ELEMENT TITLE: INTEGRATED SURVEILLANCE SYSTEM

PROJECT NUMBER & TITLE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0758 SURTASS	3,692	5,995	6,325	5,719	6,798	7,679	7,839	CONT.	CONT.

A.   (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The SURTASS project comprises the mobile, tactical arm of the Integrated Undersea Surveillance System, providing long range detection and cueing for tactical weapons platforms against both diesel and nuclear powered submarines. With the SOSUS Arrays being placed in a standby status (data available but not continuously monitored), SURTASS must provide the undersea surveillance necessary to support regional conflicts and sea-lane protection. SURTASS has experienced recent passive and active success against diesel submarines operating in shallow water. SURTASS is greatly reducing costs by consolidating logistics support, using Non-Developmental Items and commercial hardware, and increasing operator efficiency through computer aided detection and classification processing. SURTASS development efforts include: twin-line array processing, improved detection and classification/passive automation to counter quieter threats; additional signal processing and bi-static active capability; integrated active and passive operations; improved Battle Group support; and improved information processing. Functional improvements are delivered to the Fleet in software "Builds". Build #1 (FY 95) included source-set formulation and analysis tools, automated line trackers and nuclear source auto-detector. Build #2 (FY 96) included wideband energy trackers, wideband/narrowband feature association, and diesel Full Spectrum Processing (FSP). Build #3 (FY 97) included automated localization and tracking, diesel automated detectors. Build #4 (FY 98) included twin-line integration, automated classification aids that provide surface/subsurface target discrimination and subsurface target classification clues. Build #5(FY 99) includes bi-static LFA signal processing and integration of active and passive information processing subsystems to improve contact association and geographic tracking performance.

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BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0758
                            PROGRAM ELEMENT TITLE: INTEGRATED SURVEILLANCE SYSTEM

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

   1.   (U) FY 1999 PLANS:

- (U) ($ 1,560) Continue software development for computer aided detection and classification including improvements to nuclear and diesel auto-detectors, integration of active and passive information processing, improved classification aids and Bi-static processing.

- (U) ($ 800) Continue array improvements and integration and expanded array interoperability

- (U) ($ 1,332) Software development to support increased data processing on shore to support tactical operations.

   2.   (U) FY 2000 PLANS:

- (U) ($ 1,010) Develop processing improvements to support transition to TB-29 common towed array and expand array interoperability.

- (U) ($ 1,715) Complete software development to support increased data processing on shore to support tactical operations.

- (U) ($ 1,100) Continue computer aided detection, classification and tracking to improve passive performance to support tactical operations in high clutter environments.

- (U) ($ 970) Continue software development to improve Bi-Static operations in littoral/shallow water regions.

- (U) ($ 1,200) Develop software to transition to Common Processor.

   3.   (U) FY 2001 PLANS:

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Exhibit R-2a, RDT&E PROJECT JUSTIFICATION X0758

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0758
                           PROGRAM ELEMENT TITLE: INTEGRATED SURVEILLANCE SYSTEM

- (U) ($ 1,643) Continue processing improvements to support TB-29 operations and expand array interoperability.

- (U) ($ 2,532) Continue computer aided detection, classification and tracking improvements to improve passive performance to support tactical operations in high clutter environments.

- (U) ($ 2,150) Continue software development to improve Bi-Static processing in littoral/shallow water regions.

B. FY99 Reflects reductions associated with Revised Economic Assumptions (-18), SBIR (-109), LOCO GPSI (-31) and Miscellaneous Departmental Adjustments (-39). FY00 Reflects Congressional reduction (-33). FY01 reflects Miscellaneous Departmental adjustments (-69).

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
OPN 2237	12,452	7,227	5,516	17,229	9,311	19,392	24,229	CONT.	CONT.

(U) RELATED RDT&E:

    (U) PE   0204311N(Integrated Surveillance System)
    (U) PE   0603785N(Combat Systems Oceanographic Performance Assessment)
    (U) PE   0603747N(Undersea Warfare Advanced Technology)

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Exhibit R-2a, RDT&E PROJECT JUSTIFICATION X0758

EXHIBIT R-2a, FY2001 RDT&E PROJECT JUSTIFICATION   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0758
                            PROGRAM ELEMENT TITLE: INTEGRATED SURVEILLANCE SYSTEM

D.   (U) ACQUISITION STRATEGY:

	FY 1999	FY 2000	FY 2001
Program Milestones			
Engineering Milestones	BUILD #5 INTEGRATED PASSIVE IP		NCAP A-180R VARIANT 2/01
T&E Milestones	SEA TEST INTEGRATED TWIN-LINE		SEA TEST NCAP A-180R VARIANT
Contract Milestones			

Exhibit R-2a, RDT&E PROJECT JUSTIFICATION X0758

EXHIBIT R-3, FY2001 RDT&E PROJECT COST ANALYSIS   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0758
                            PROGRAM ELEMENT TITLE: INTEGRATED SURVEILLANCE SYSTEM

Exhibit R-3 Cost Analysis (page 1)												Date: Feb 2000	
RDT&E/Budget Activity 7			PROGRAM ELEMENT: 0204311N							SURTASS x0758			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
---	---	---	---	---	---	---	---	---	---	---	---	---
Passive Auto	CPFF	RSC/APL/DSR	21,735	250	12/98	1,120	11/99	1,681	12/00	Cont.		3,051
Array Improvements	CPFF/WR	RSC/APL/SSC	14,696	750	3/99	800	11/99	1,050	12/00	Cont.		2,600
Processing Improvements	CPFF	RSC/APL/DSR	21,531	1,066	1/99	2,170	11/99	1,289	12/00	Cont.		4,525
Various	Var/WX	Various	14,490	589	10/98	650	11/99	1,050	10/00	Cont		2,289
Subtotal Product Development			72,452	2,655		4,740		5,070				12,465
Remarks: APL = APL/JHU RSC = Raytheon Systems Co. SSC = SPAWAR Systems Center. DSR = Digital System Resources												
Passive/Array improvements	Var/WX	Various	1627	150	10/98	250	10/99	250	10/00	Cont.		650

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Exhibit R-3, RDT&E PROJECT COST ANALYSIS

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EXHIBIT R-3, FY2001 RDT&E PROJECT COST ANALYSIS   DATE: FEB 2000

BUDGET ACTIVITY: 7   PROGRAM ELEMENT: 0204311N   PROJECT NUMBER: X0758
                          PROGRAM ELEMENT TITLE: INTEGRATED SURVEILLANCE SYSTEM

Subtotal Support			1,627	150		250		250				650
Remarks												

(Exhibit R-3, page 1 of 2)

Exhibit R-3 Cost Analysis (page 2)												Date: Feb 2000	
RDT&E/Budget Activity 7					PROGRAM ELEMENT: 0204311N						SURTASS x0758		
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Passive/Array improvements	Var/WX	MISC.	2,126	787	10/98	905	10/99	905	10/00	Cont.		2,597
Subtotal T&E			2,126	787		905		905				2,597
Remarks												
Passive/Array improvements	Var/WX	MISC.	407	100	10/98	100	10/99	100	10/00	Cont.		300
Subtotal Management			407	100		100		100				300
Remarks												
Total Cost			76,612	3,692		5,995		6,325				16,012
Remarks												

(Exhibit R-3, page 2 of 2)

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Exhibit R-3, Project Cost Analysis